KNOWLEDGE ORGANIZATION FROM AN INSTITUTIONAL POINT OF VIEW: Implications for Theoretical & Practical Development

by JOACIM HANSSON

Knowledge organization and classification research are seen by many scholars as the very epicenter of Library and Information Science (LIS). Whether this is justified is of course arguable, but it is without doubt a subfield in LIS with a strong scholarly tradition, high demands and high ambitions when it comes to theoretical development. At the same time it is firmly rooted in practical librarianship and equivalent professions and practices within so-called memory institutions such as museums and archives. However, I will not limit my discussion to knowledge organization or classification research in a narrow sense, but instead discuss it together with other subfields of LIS like information behavior research and information retrieval. I do not see any sharp boundaries between the different fields of research in LIS, but instead think that the discussion of theory development is of such character that a wide scope and an eclectic approach is needed if we are to connect the actual practice and circumstances of librarianship with current empirical realities of the context in which libraries operate. In the end, since my aim is to provoke thought, I will argue for aspects of institutional theory as a means to finally let go of essentialist thinking on classification and still keep a substance of practice within the denial of absolutes, thus creating an environment for a possible conjunction of contemporary epistemology and critical perspectives within knowledge organization. At base, the argument here is that a better grounded theory and epistemology makes for a more critical, liberatory librarianship.

Contemporary LIS discussions have emerged during the last years that focus on fundamental issues like epistemology, paradigmatic characteristics of the discipline, and a need to move away from what is seen as a fruitless

and old fashioned positivistic point of departure for the discipline as a whole. This discussion has also had several well-argued contributions from the community of knowledge organization scholars such as Svenonius (2000), Smiraglia (2002), Hjørland (1998, 2002), Andersen (2004) and Mai (2004, 2005). I have elsewhere defined the scientific development in LIS by pointing out two parallel and somewhat contradictory "paradigms" or "perspectives" which present us with two rather distinct sets of epistemological and practical prerequisites: one process-oriented (the information perspective) and a second institutionally-oriented perspective (Hansson 2004). These perspectives are also visible within knowledge organization research which, at the same time, can be seen as a meeting point between the two.

Theory in Knowledge Organization and Information Behavior Research

When discussing theoretical developments in knowledge organization research we are dependent on the definition of its outer limits and relations to other subfields within LIS. Basically all formulations of LIS as a scientific discipline can be said to focus on the interrelationship between three fundamental concepts: libraries, information and documents.

The information perspective has, ever since its emergence in the late 1940s and early 1950s, strongly leaned towards the sciences in terms of how to define scientific progress and theoretical development. Its founding concept is information and it has been a constant problem since the concept has been almost impossible to define, and thus there is often a strange absence when trying to sort out what is really being studied. Buckland (1991) states that, among other things, information is always situational. This makes it difficult to produce an information-related theory with any form of generalizable claims, especially if information is seen as something which can be extracted from situational context and studied in itself.

Hjørland has characterized the lack of a clearly defined theory and conceptual consistency as deeply problematic for LIS (2000, pp. 517-519). Despite this, one of the main characteristics of the information perspective in relation to the institutional perspective (to be defined later in this paper) is its claim to hegemony – empirically, methodologically and theoretically (Miksa 1992). In LIS research we find this perspective represented by the majority of influential studies and dominant subfields. The point of departure is the simple "information chain" whether studied from a systems point of view or, since the late 1970s, predominantly from a cognitive (user) point of view. One may, of course, use other terms to label this very broad and

diverse research, such as that of "cognitive constructivism" used by Talja, Tuominen and Savolainen (2005) specifically referring to the cognition-oriented information behavior research of the last three decades.

In knowledge organization theory, cognitive perspectives have not been as dominant as in information behavior research. The reason for this is it is practically impossible, at least in the long run, to avoid connecting knowledge organization and classification research to the actual content of the documents and document collections in relation to the classification and indexing performed. This can seem trivial, but it is actually not, and it is important when we look at the problems of cognitivism and compare them with problems with the institutional perspective – which I will soon address. The problems with the "cognitive viewpoint" (Ingwersen 1992, 2002) are many. Primarily the tendency is not only to deny the information concept its situational characteristic, but also to limit information behavior to isolated individuals. Generally there is a strong movement away from this isolationist view in, for example, contemporary information behavior research and information retrieval, which is going in a direction that better fits the requirements of a socially defined use of information. However, all too often this research does not actually pay much attention to the content which makes information meaningful. This is visible in many high profile studies such as Ingwersen & Järvelin (2005) where an attempt is made to integrate information seeking research into information retrieval along with the "theory" of so-called information grounds by Fisher et al. (2005). However, the research basically just establishes not very surprising facts – like when people talk to each other, for example on buses and in cafés, they exchange information.

Domain Analysis

In recent LIS literature and, more specifically, in the literature on knowledge organization, an alternative to cognitive constructivism or, more broadly, the information perspective has been defined as domain analysis. However, the proponents of domain analysis do not specifically position themselves in the conflict between the information perspective and the institutional perspective. Domain analysis as an analytical point of departure is presented in a rather narrow LIS form by Birger Hjørland (Hjørland & Albrechtsen 1995, Hjørland 2002). It has been fruitful in terms of epistemological rhetoric, but has still to prove itself in practical research. In a special issue of the journal *Knowledge Organization* (No. 3-4, 2003), several good examples were gathered, suggesting that domain analysis actually might be a true development in our theoretical understanding of problems in LIS and knowledge organization (Ørom 2003, Abrahamsen 2003, Hartel 2003).

Epistemologically, however, domain analysis takes a rather traditional realist way of thinking about knowledge organization, classification research and subject analysis. This makes the approach constructive in the analysis of traditional classification, related to disciplinary structures and taxonomical definitions of relation between concepts. What we need in classification research is the development of approaches such as domain analysis, but we also need approaches which can take us further on the path of new a epistemology. Attempts to develop domain analysis in such a direction have been made, for example by Mai (2005). We don't need to leave traditional concept building or theory development, but instead we should use such constructs in combination with established scientific concepts and nontraditional epistemology. Institutional theory is one such theory that may be used in this kind of combination.

Intstitutional Theory and the Institutional Perspective

Epistemologically, the institutional perspective in LIS has many things in common with domain theory, social constructivism and methodological collectivism. It can also be said to embrace what Talja, Tuominen & Savolainen (2005) call social constructionism – a position close to social constructivism though more directed towards discourse as a tool for understanding the world. Most fundamentally it advocates the view that no (information) process can take place independent of space and time. The processes of document representation and retrieval must have a place in which they take place, otherwise it is not possible to define properly nor assign any significant meaning. In LIS, the institutional perspective represents a way of defining the studied processes as social, ideological, meaningful, and relating to libraries and other memory institutions in a fundamental way. This is not a limitation, but an empirical specification which gives direction to the kinds of delineations necessary if the LIS community does not want to perish among other communities of scholars. It is the social and intellectual connections to these memory institutions (libraries, museums, etc.) that distinguishes LIS from other disciplines and forms the core of its social legitimacy. It thus addresses fundamental issues and questions concerning organizing and making documents available to people from a somewhat different angle than domain theory in that it takes into consideration not only the domains defined in relation to linguistic representations of, for example, an academic discipline, but institutional dependencies that go beyond this linguistic representation. It thus raises epistemological doubt over the representational character of bibliographic knowledge organization systems and opens a variety of interpretations in line with more contemporary epistemological developments such as standpoint epistemologies (Trosow 2002) and neo-pragmatism (Sundin

& Johannisson 2005) which are relevant to everyday librarianship. The origins of the institutional perspective are to be found primarily in political science where institutional theory has developed over several decades, from a system theory approach to contemporary schools often gathered under the label of "new" or "normative" institutionalism (Peters 1999).

Institutionalism, or what might be described as an institutional perspective on LIS problems, is nothing new. In his Sarada Ranganathan lectures from 1967, published in 1970 as *The Sociological Foundations of Librarianship*, Jesse Shera presents a discussion on the relation between graphic communication and institutional dependencies, with examples taken from librarianship. This discussion is a contribution to his general project of creating a social epistemology as a solid theoretical basis for the practice of librarianship (Egan and Shera 1952, Egan 1956, Furner 2004, Zandonade 2004). He pinpoints a problem which is visible in the whole of LIS, but perhaps most in knowledge organization in relation to the discussion of the scientific character of the discipline. In his lecture on "The Library and Knowledge" he contrasts the view of the library and its inherent bibliographic processes as a closed system to one of the library as a dynamic system:

> In the past, the library has operated as a kind of closed system. We have built our classification schemes, our bibliographic guides; the whole field of subject analysis of library materials have implied, whether we realise it or not, that the relationships of various segments of knowledge are relatively permanent, that these relationships stand, more or less for all times. The great weakness in the Dewey Decimal Classification and the classifications of his contemporaries was that they all viewed books in a taxonomical sense. (Shera, 1970, p. 90)

The taxonomical character of traditional classification systems is an effect of the contemporary influence of Darwinism, but as Shera continues he distances himself from these postulates by claiming the necessity of viewing the bibliographic processes of libraries as open ended. (In referring to the problem of universal representations depending on both temporal and spatial conditions, one thinks of Birger Hjørland's {1997, p. 86} poignant definition of subject classifications as "the informative potentials of documents.") Shera continues his argument: "Therefore, in a sense, each generation must recreate anew its bibliographical instruments, its tools, because what was adequate for one generation may be completely inadequate for another. This is one of the great errors that, I think, Bliss made when assuming that he had discovered for the library world 'the true order of nature.'" (Shera 1970, p. 92)   Bliss's view has recently been

dismissed again as obsolete (Broughton et al. 2005, p. 137-138). However, while impossible to uphold an essentialist view of the representational character of bibliographic classification, it is notable that scholars are drawn to this position as though it gives them some sort of comfort in a documentary universe as chaotic and incomprehensible as the one we live with today. One can note this tendency in Maltby & Marcella (2000) and Zins (2004) for example.

Shera's ideas in the late 1960s were progressive enough, but they go only part of the way toward broader notions of defining the order of things in non-essentialist terms. For instance, he makes a rather traditional distinction between institutions and agents in which knowledge stands as a weakly defined institution that employs a number of agents to fulfill its "idea" or its meaning. Examples of such agents are libraries, schools on all levels, and universities. The institution is said to be consisting of certain ideological fundamentals that are to be operationalized by the different agents. Those fundamentals give both the institutions and the agents an essentialist core in relation to which they have to act in ways that can vary over time or generations. How such a core is to be defined is, however, by no means clear. There are several options for definition, but one clearly relevant for classification practice and research is the classical notion of a universe of knowledge, which sets the relations between different topics and disciplines in such a manner that a classification system may represent these relations in a more or less fixed way – thereby replicating the very problems Shera critiqued.

As a cross-disciplinary field within the social sciences, LIS has always been open to the influence of methodological and theoretical developments in the disciplines closest to its area of interests. Shera's discussion is a good example of this. Bringing his argument up-to-date in the landscape of contemporary social science, we can see that issues concerning institutionalism have continued to grow in significance. Discussion on institutional theory has been especially notable during the last two decades. The most prominent "new" institutionalism that has emerged is the normative institutionalism of James G. March and Johan P. Olsen (March & Olsen 1989, Peters 1999). It developed in political science and has proven interesting and fruitful in relation to LIS problems, most notably in analyses of public library development (Audunson, 1999; Zetterlund, 2004), but also in studies in critical classification (Hansson 1999). The most obvious reason for its relevance to LIS research is that, in addition to looking at institutions (fairly common in political science and more compatible with the distinction between institutions and agents as seen in Shera), normative institutionalism emphasises institutional identity made visible through certain values, norms and regulative rules. This

opens up a critically-oriented analysis of political and ideological factors influencing not just libraries and the practice of librarianship, but their role in the information behavior of people. Knowledge organization systems may also be subjected to analysis from a point of view that reveals them as biased in a political and ideological sense, bringing a thrust not possible (and perhaps even unnecessary) if a mere representative position in relation to a knowledge universe or any other absolute entity is stipulated. Classification systems are seen as the tools of librarianship, and as such, subject to the study of the institutional prerequisites that control libraries and other memory institutions.

March & Olsen identify three ways in which change occurs in political institutions. All are relevant in the discussion of the development of classification systems as well as in the analysis thereof:

> First, there is considerable mundane adaptiveness in institutions that can be influenced. Although the course of change cannot be arbitrarily dictated, it is possible to influence the gradual transformation by stimulating or inhibiting predictable processes. Second, although the rules and routines of institutional life are relatively stable, they are incomplete. It is possible to influence the resolution of ambiguity surrounding the rules. Third, it is possible to produce incomprehensive shocks in institutions that transform them relatively abruptly. As in the case of mundane changes, the transformation cannot be controlled with any great precision; but change can be produced intentionally (March & Olsen 1989, p. 58).

Mundane change understood this way is consistent with the incremental change Pungitore (1995) identifies as typical for libraries of different kinds. The very "slow" pace of change has been characteristic of traditional classification systems for as long as we have had them. It has been seen as one of the constituent elements in the development of these systems, creating a structure stable enough not to disturb librarians, yet dynamic enough to ensure development in conjunction with society as a whole. Today however, the situation is different. While libraries still change "mundanely" in many ways, the practice of classification and the very fundamentals of knowledge organization are now developing more or less through "shock." Traditional classification systems as reflections of certain principles of knowledge division, primarily hierarchic and taxonomical, stand against individual perceptions that characterize the variety of classification and subject divisions on the internet in various degrees independent of traditional ideals. This juxtaposition is the key problem of practical knowledge organization today. In no other subfield

of LIS do we see such a distinct "before" and "after" in a temporal sense as we do in the relation between bibliographic knowledge organization and the general implementation of the internet about a decade ago (MacLennan 2000).

The boundaries between institutions and agents are not clearly defined in the writings of March and Olsen, but distinctions are made between viewing the organization as an agent or an institution, and viewing the individual in relation to an institution defined at an organizational level (public libraries, academic libraries etc.) or more sociologically ("education," library sector etc.). Agents, whether individuals or organizations, develop and function within the given institution in accordance with these norms and values, which are seen as governing the manifestations of the institution. The way in which agents adapt is called the logic of appropriateness - contrasted against the logic of consequentiality found in systems and traditional institutional theory. March and Olsen maintain that:

> In a logic of appropriateness...behaviors (beliefs as well as actions) are intentional but not willful. They involve fulfilling the obligations of a role in a situation, and so trying to determine the imperatives of holding a position. Action stems from a conception of necessity rather than preference. Within a logic of appropriateness, a sane person is one who is "in touch with identity" in the sense of maintaining consistency between behavior and a conception of self in a social role. Ambiguity or conflict in rules is typically resolved not by shifting to a logic of consequentiality and rational calculation, but by trying to clarify the rules, make distinctions, determine what the situation is and what definition "fits" (1989, p. 161).

Guy Peters takes another approach to the "logic of appropriateness" concept:

> The operation of the logic of appropriateness can be seen as a version of role theory. The institution defines a set of behavioral expectations for individuals with positions within the institution and then reinforces behavior that is appropriate for the role and sanctions behavior that is inappropriate. Some aspects of the role may apply to all members of the institution, while other expectations may be specific to the position held by an individual. Further, like organizational culture there may be several versions of the role among which a role occupant can pick and choose.... Despite the somewhat amorphous nature of a role, the concept does provide a means of linking individual behavior and the institution (1999, p. 30).

I contend that knowledge organization and classification research has much to learn from these perspectives. It is fruitful in our context not least in coming to terms with different bias issues that have been the focus of critical classification research since the 1970s. It also suggests a way of approaching new and emerging epistemological positions which constructively question the traditionally assumed representativity of knowledge organization systems, whether the representation is concerned with structures of knowledge or conditions in society. In short, it is a good concept for analyzing change. In an epistemological environment that today is more scattered than ever, normative institutionalism may help bridge the tensions in knowledge organization research and in LIS as a whole by its combination of emphases on individual influences on institutional practices and the influence of institutionally developed norms, rules, and values on the individual. Hence, one might even suggest that the distinction between relativism and the claims to objective knowledge would cease to exist. Such a proposition is crucial in our analyses and development of knowledge organization systems.

Conclusion

The new empirical environment for knowledge organization and classification research calls for ways of thinking that are less concerned with empty information-concepts and cognitive processes, and more in tune with the institutionally and socially defined reality of the systems to be studied and developed. An instititutional approach to the problems at hand is needed. Recent years have seen several attempts in this direction. Domain analysis and the increased focus on classification systems as social artifacts (Hansson 1997, 1999) were mentioned. Another is an interest in documents as agents in various social and institutional environments – producing consequences for different practices of document description (Vellucci 1997, Smiraglia 2001). It is no longer only a question what classification does to documents, but what the documents do to classification and the development of collections to which they belong, not just as dead containers of information, but as material carriers of practices, norms and values (Brown & Duguid 1996, Frohmann 2004a, 2004b). Instead of formulating problems of information seeking and retrieval, Frohmann suggests that we talk about documentary practices. Paired with the concept of logic of appropriateness, these concepts might hold major potential in future theory development in knowledge organization and in LIS as a whole.

Approaching an empirical environment that can be labelled as post-modern, we must try to combine the sense of a scattered reality that is inherent therein with a framework of norms and values that can be used to

describe the transformation of knowledge – not from a point of absolutes, but from the point of interests. Attempts to discuss radical epistemological and methodological issues such as neo-pragmatism, standpoint epistemologies, feminism and queer theory have been met with scepticism in the LIS community so far, although several well done studies related to these approaches have been published in different parts of the discipline (Creelman & Harris 1990, Whitt 1993, Olson 2002). In knowledge organization, the pitfalls characteristic of traditional classification and in the writings of Ranganathan (for example) are discussed in ways which indicate a potential for critical perspectives. This discussion gives precedence to the situational character and the dependency of interests of knowledge in bibliographic classification. For our purposes here, it is more important to examine the effects of these dependencies on practical librarianship and the role of classification in defining the normative basis of libraries. This is of particular interest in terms of the relationship between classification and public librarianship which has a far more complex function in society than, for example, academic librarianship.

By taking as a point of departure a new, post-modern epistemology, we might free ourselves from the conceptual bindings that were developed in classification research during the late 19th and early 20th century – logical and reasonable then, but in many cases obsolete today. It must however be combined with a critical perspective that can make this position politically and socially viable. This would also pave the way for a discussion of more intellectual weight than the one that we all know so well, which is predominantly concerned with the advancement of information and communication technology governed by capitalist self interest. Critical readings of current classification systems must be enhanced in order to create an understanding not of the essentialist foundation of knowledge structures, but of the social and cultural relations which form the content and structure of these systems. Competing interests are at play here. The institutional prerequisites for librarianship have changed dramatically and are in constant flux. The concept of the logic of appropriateness (which was not developed within a post-modern conceptual environment) in combination with a general critique of those norms that have made traditional classification systems (such as Dewey, UDC, and the Swedish SAB-system characteristically biased as white, heterosexual, middleclass, Christian, and male) is challenging and worth considering.

If we treat research within knowledge organization as a part of a bigger field of research (Library and Information Science) as I believe we must, the use of normative institutionalism as a bridge between traditional classification research and a post-modern way of thinking about subject analysis will be constructive. Also, the relation between knowledge organization, library

research, and information behavior research is important to acknowledge in practice. And, not least, the acceptance of radical renewal of the epistemological level of classification research would be facilitated. The problems of knowledge organization seem in some cases to be timeless. They are not. The ways in which we approach them must also change with the times. It is time to start questioning the fundamentals of today's approaches. Not only would that give classification research the vital injection that it so badly needs, but it may even help us come up with solutions and theoretical constructs that we so far have had difficulty foreseeing. The general directions are by no means random. They can be worked out to form a basis for what we want to accomplish within LIS – a development of librarianship characterized by firm action for freedom of expression and democracy, and the emancipation of underprivileged groups in society.

WORKS CITED

Abrahamsen, K. T. (2003) "Indexing of musical genres: an epistemological perspective." *Knowledge Organization*, 30.3-4: 144-169.

Andersen, J. (2004) Analyzing the role of knowledge organization in scholarly communication: An inquiry into the intellectual foundation of knowledge organization. Copenhagen: Royal School of Library and Information Science. Available at: http://www.db.dk/dbi/samling/phd_dk.htm

Audunson, R. (1999) "Between professional field norms and environmental change impetus: a comparative study of change processes in public libraries." *Library and Information Science Research*, 21.4: 523-552.

Broughton, V. et al. (2005) "Knowledge organization." *European Curriculum Reflections on Library and Information Science Education*. Eds Leif Kajberg & Leif Lørring. Copenhagen: Royal School of Library and Information Science.133-148. Available at: http://biblis.db.dk/uhtbin/hyperion.exe/db.leikaj05

Brown, J.S. & Duguid, P. (1996) "The social life of documents" First Monday 1.1. http://www.firstmonday.org/issues/issue1/documents

Buckland, M. (1991) *Information and information systems*. Westport, CN: Praeger.

Creelman, J. & Harris, R. (1990) "Coming out: the information needs of lesbians." *Collection Building*, 10.3-4: 37-41.

Egan, M. & Shera, J. (1952) "Foundations of a theory of bibliography." *Library Quarterly*, 22.2: 125-137.

Egan, M. (1956) "The library and social structure." *Library Quarterly*, 25.1: 15-22.

Fisher, K. et al. (2005) "Something old, something new: preliminary findings from an exploratory study about people's information habits and information grounds" *Information Research*, 10.2: paper 223 [Available at: http://InformationR.net/ir/10-2/paper223.html]

Frohmann, B. (2004a) *Deflating information: from sciences studies to documentation*. Toronto: Univ. of Toronto Press.

Frohmann, B. (2004b) "Documentation redux: prolegomenon to (another) philosophy of information." *Library Trends*, 52.3: 387-407.

Furner, J. (2004) "Information studies without information" *Library Trends*, 52.3:427-446.

Hansson, J. (1997) "Why public libraries in Sweden did not choose Dewey." *Knowledge Organization*, 24.3:145-153.

Hansson, J. (1999) *Klassifikation, bibliotek och samhälle: en kritisk hermeneutisk studie av "Klassifikationssystem för svenska bibliotek."* [Classification, libraries and society: a critical hermeneutic study of 'Classification system for Swedish libraries' (the SAB-system)] Borås: Valfrid. (In Swedish with English summary)

Hansson, J. (2004) "The social legitimacy of Library and Information Studies: reconsidering the institutional paradigm" *Aware and Responsible: papers of the Nordic-International colloquium on social and cultural awareness and responsibility in library, information and documentation studies*. Ed. Boyd Rayward. Lanham MD: Scarecrow Press. 49-69.

Hartel, J. (2003) "The serious leisure frontier in Library and Information Science: hobby domains." *Knowledge Organization*, 30.3-4: 228-238.

Hjørland, B. (1997) *Information seeking and subject representation: an activity-theoretical approach to information science*. Westport, CN: Greenwood Press.

Hjørland, B. (1998) "Theory and metatheory of information science: a new interpretation." *Journal of Documentation*, 54.5: 606-621.

Hjørland, B. (2000) "Library and Information Science: Practice, theory, and philosophical basis." *Information Processing and Management*, 36.3: 501-531.

Hjørland, B. (2002) "Domain Analysis in information science: eleven approaches traditional as well as innovative." *Journal of Documentation*, 58.4: 422-462.

Hjørland, B. & Albrechtsen, H. (1995) "Toward a new horizon in information science: domain analysis." *Journal of the American Society for Information Science*, 46.6: 400-425.

Ingwersen, P. (1992) *Information retrieval interaction*. London: Taylor Graham.

Ingwersen, P. (2002) "Cognitive perspectives of document representation." *Emerging Frameworks and Methods: Proceedings of the 4th International Conference on Conceptions of Library and Information Science* (CoLIS4). Eds. Harry Bruce et al. Greenwood Village, CL: Libraries unlimited. 285-300.

Ingwersen, P. & Järvelin, K. (2005) *The turn: integration of information seeking and retrieval in context*. Dordrecht: Springer.

MacLennan, A. (2000) "Classification and the Internet." *The future of classification*. Eds. Rita Marcella & Arthur Maltby. Aldershot: Gower 59-68.

Mai, J-E. (2004) "Classification in context: relativity, reality, and representation." *Knowledge Organization*, 31.1: 39-48.

Mai, J-E. (2005) "Analysis in indexing: document and domain centred approaches." *Information Processing and Management*, 41: 599-611.

Maltby, A. & Marcella, R. (2000) "Organizing knowledge: the need for system and unity." *The future of Classification*. Eds. Rita Marcella & Arthur Maltby. Aldershot: Gower. 19-31.

March, J.G. & Olsen, J.P. (1989) *Rediscovering institutions: the organizational basis of politics*. New York: Free Press.

Miksa, F. (1992) "Library and information science: two paradigms." *Conceptions of Library and Information Science: historical, empirical and theoretical perspectives*. Eds. Pertti Vakkari & Blaise Cronin. London: Taylor Graham. 229-252.

Olson, H. (2002) *The power to name: locating the limits of subject representation in libraries*. Dordrecht: Kluwer.

Ørom, A. (2003) "Knowledge organization in the domain of Art Studies: history, transition and conceptual changes." *Knowledge Organization*, 30.3-4: 128-143.

Peters, B.G. (1999) *Institutional theory in political science: the "new institutionalism."* London: Pinter.

Pungitore, V. (1995) *Innovation and the library: the adoption of new ideas in public libraries*. Westport, CN: Greenwood Press.

Shera, J. H. (1970) *Sociological foundations of librarianship*. London: Asia Publishing House.

Smiraglia, R. (2001) *The nature of "a work": implications for the organization of knowledge*. Lanham, MD: Scarecrow Press.

Smiraglia, R. (2002) "The progress of theory in knowledge organization." *Library Trends*, 50.3: 330-345.

Sundin, O. & Johannisson, J. (2005) "Pragmatism, neo-pragmatism and sociocultural theory: communicative participation as a perspective in LIS." *Journal of Documentation*, 61.1: 23-43.

Svenonius, E. (2000) *The intellectual foundation of information organization*. Cambridge, MA: MIT Press.

Talja, S., Tuominen, K. & Savolainen, R. (2005) "'Isms' in information science: constructivism, collectivism and constructionism." *Journal of Documentation*, 60.1: 79-101.

Trosow, S.E. (2002) "Standpoint epistemology as an alternative methodology for library and information science." *Library Quarterly*, 71.3: 360-382.

Vellucci, S. (1997) *Bibliographic relationships in music catalogs*. Lanham, MD: Scarecrow Press.

Whitt, A.J. (1993) "The information needs of lesbians: survey of 141 lesbians in a metropolitan area of North Carolina." *Library and Information Science Research*, 15.Summer: 275-288.

Zanzonade, T. (2004) "Social epistemology from Jesse Shera to Steve Fuller." *Library Trends*, 52.4: 810-832.

Zetterlund, A. (2004) *Att utvärdera i praktiken: en retrospektiv fallstudie av tre program för local folkbiblioteksutveckling* [To evaluate in practice: a retrospective case study of three programs for local public library development]. Borås: Valfrid. (In Swedish with English summary)

Zins, C. (2004) "Knowledge organization: an epistemological perspective." *Knowledge Organization*, 31.1: 49-54.